

**Abstract**

A method for testing the error ratio BER of a device under  
5 test against a specified allowable error ratio comprises  
the steps: measuring  $n_s$  samples of the output of the  
device, thereby detecting  $n_e$  erroneous samples of these  $n_s$   
samples, defining  $BER(n_e) = n_e/n_s$  as the preliminary error  
ratio and deciding to pass the device, if the preliminary  
10 error ratio  $BER(n_e)$  is smaller than an early pass limit  
 $EPL(n_e)$ . The early pass limit is constructed by using an  
empirically or analytically derived distribution for a  
specific number of devices each having the specified  
allowable error ratio by separating a specific portion DD  
15 of the best devices from the distribution for a specific  
number of erroneous samples  $n_e$  and proceeding further with  
the remaining part of the distribution for an incremented  
number of erroneous samples.

20 (Fig. 7)